

① Solve the system

$$\textcircled{a} \begin{cases} 3x - 5y = 26 \quad (2) \\ -2x - 3y = -11 \quad (3) \end{cases}$$

$$+ \begin{array}{r} 6x - 10y = 52 \\ -6x - 9y = -33 \\ \hline -19y = 19 \\ \boxed{y = -1} \end{array} \quad \begin{array}{r} -2x - 3(-1) = -11 \\ -2x + 3 = -11 \\ -3 \quad -3 \\ \hline -2x = -14 \\ \boxed{x = 7} \end{array}$$

$$\textcircled{b} \begin{cases} 2x + 3y = 12 \\ -5x + y = -13 \quad (3) \end{cases} \Rightarrow \begin{array}{r} 2x + 3y = 12 \\ 15x - 3y = 39 \\ \hline 17x = 51 \\ \boxed{x = 3} \end{array}$$

$$\begin{array}{r} 2(3) + 3y = 12 \\ 6 + 3y = 12 \\ 3y = 6 \\ \boxed{y = 2} \end{array}$$

$$\textcircled{c} \begin{cases} -3x + 5y = 7 \quad (2) \\ 6x - 10y = -14 \end{cases}$$

$$\begin{array}{r} -6x + 10y = 14 \\ 6x - 10y = -14 \\ \hline 0 = 0 \end{array} \quad +$$

All \mathbb{R} Solutions
Same line
Dependent

$$\textcircled{d} \begin{cases} -4x + 2y = 10 \\ y = 2x + 3 \end{cases}$$

$$\begin{array}{r} -4x + 2(2x + 3) = 10 \\ -4x + 4x + 6 = 10 \\ 6 = 10 \end{array}$$

No Solutions
parallel
inconsistent

HW:

- Finish Cookie write up
- Finish Review

Before you leave

- Turn in coin problem write up